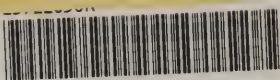


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TREATMENT
OF
PLEURISY.
BY
DR. CORSON.



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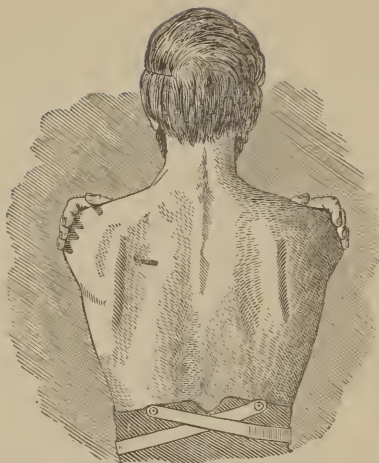
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— Nitrate of Silver Mark; Ægophony or Bronchophony; "Un-covering the Chest behind."



For a description of these cuts see page 16.

ON THE
TREATMENT OF PLEURISY:

WITH AN APPENDIX OF CASES, SHOWING THE
VALUE OF COMBINATIONS OF CROTON OIL,
ETHER, AND IODINE, AS COUNTER-
IRRITANTS IN OTHER DISEASES.

BY

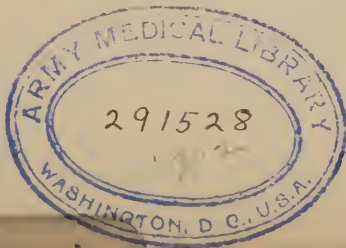
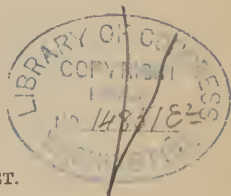
JOHN W. CORSON, M.D.,

LATE, PHYSICIAN TO THE CLASS OF "DISEASES OF THE CHEST AND
THROAT" IN THE NEW YORK AND EASTERN DISPENSARIES;
FORMERLY PHYSICIAN TO THE BROOKLYN CITY HOS-
PITAL; PHYSICIAN TO THE ORANGE MEMORIAL
HOSPITAL; AUTHOR OF "LOITERINGS
IN EUROPE," &c.

NEW YORK:

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1874.

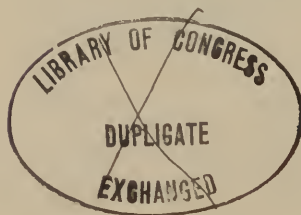


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PREFACE.

As will be seen, this little volume is the result of observations of more than five hundred cases of pleurisy, during a service of several years as physician to the class of "*Diseases of the Chest and Throat*" in the New York and Eastern Dispensaries. It is a sketch of its management in a lowly field. Except the Appendix, it was given in substance in a paper read before the New York Medical Library and Journal Association, "On the General Treatment of Pleurisy, and the use of 'Croton-Oil Paint' as a Substitute for Fly-Blisters," and published in the New York Medical Record for Dec. 1, 1874.

The free style of the clinical lecture, rather than that of the formal essay, has been retained as the most natural; for it seemed more like *talking* with valued friends, after long absence, than reading. To some of these, many thoughts here presented may hardly appear new. The generation of practitioners who in their youthful studies, twenty years ago, were kind enough to patronize our Saturday "Chest Cliniques for Students," or plain "Spring" College Lectures, may possibly recognize as familiar topics then discussed, "Mildness in Treatment," "Alternate Painting and Rubbing with Iodine and Croton-Oil," "The Nitrate-of-Silver Test," "Uncovering the Chest Behind," "The Relative Value of Remedies," and especially the plea for "Flavoring Medicines," even among the desolate poor. But it is hoped that these will seem fresh in print. If anything in this effort shall help to lessen one pang of human suffering, its highest aim will be gratified. For in his heart, the true physician ever cherishes the Christian maxim: "*None of us liveth to himself.*"

ORANGE, N. J., Dec., 1874.

CAREFUL statistics from great charities have helped to fix the real value of many remedies. When life is at stake we dare not lightly risk new things. In presenting any fancied improvements before so many accomplished physicians, it is but just, frankly to give the facts and figures on which they are based. Let us gladly appeal to numbers. From the report of Dr. Aigner of his European tour, it appears that, doubtless from our vast emigration, the dispensaries of New York are the largest in the world.* The writer proposes to discuss the general treatment of pleurisy, and the use of croton-oil and the tincture of iodine as substitutes for fly-blisters, in this lowly field. His experience was mainly during several years of service as physician to the class of "Diseases of the Chest and Throat," in the New York and Eastern Dispensaries. These investigations were commenced more than twenty years since. They were principally in the first of the above institutions, which was the most venerable and extensive.

Many here will remember a quaint, old brick building that then stood on the site of the present elegant edifice in Centre street, near the Five Points.

* See Annual Report of the New York Dispensary for 1863. St. Bartholomew's and other hospitals in London have very large "Out-door Departments;" but the regular dispensaries of European cities are much smaller than ours.

A stone on the south end celebrated the date of its erection, in the last century, by the inscription, "*New York Dispensary, 1790.*" From many causes this noble charity furnished the greatest "annual crop" of pleurisy that we have ever seen. It was built, as if in honor of our Dutch ancestors, over an ancient skating-pond. Even as early as our day, it was surrounded with great, filthy tenement-houses. These were filled to overflowing with weary, destitute emigrants of all nations, who were often fed on cheap refuse provisions, and lodged on cold floors with a scanty covering. The sanitary condition of that low region was awful. In some respects it was doubtless worse than that of St. Giles, London, or Cowgate, Edinburgh. At midnight in winter, it seemed like the valley of death. It was near Cow Bay, and the haunts of sin and misery. And it had underground dance-houses, with small, red windows, lit up as with Satanic flames. Here all human colors mingled in revelry, and drunken men staggered forth as if from a Turkish bath, reeking with perspiration, to sleep and sicken on frozen sidewalks.

The multitude of sick relieved by this long-established institution for our young country, was almost incredible. Its reputation had grown among all classes from its foundation, owing to the labors of many of the best physicians of your city.* From a volume

* Among many other well-known names, we notice on the "consulting" list, those of Drs Hosack, Post, Stevens, Willard Parker, Gilman, Bulkley, Watson, Linsly, and Markoe; and as Attending Physicians or Surgeons, Drs. A. C. Post, Gurdon Buck, J. A. Swett, G. F. Shrady, I. E. Taylor, Purdy, James Crane, Van Kleeck, McCready, Clements, Briddon, J. O. Stone, Purple, Halstead, Elisha Harris, Stephen Smith, Bishop, Eager, Gomez, A. B. Mott, Theband, Pulling, Cameron, O'Rourke, Aigner, W. C. Corson, Kennedy, Harrison, Kelly, Robinson, Murray, and many others.

of printed Annual Reports, kindly furnished by the treasurer, which we hold in our hands, we learn that during the seven years and a half of our service there, commencing with the spring of 1852, that including vaccinations, dentistry, and all its departments, it actually averaged the enormous number of over forty thousand patients yearly. For the reasons given, its percentage of chest diseases was very large. It seems from these records that within six years of strict classification, previous to the close of 1859, during which, with the exception of a few weeks, the writer divided equally with another physician the class of "Diseases of the Chest and Throat," there were entered twelve hundred and forty-eight cases as "pleuritis." This was an average of two hundred and eight annually. The male side, which we happened to have, would naturally rather excel the female department from greater exposure. Deducting one-sixth for the district service, this would give for our personal share, as the basis of these observations, over five hundred cases of pleurisy. To be safely within bounds, this estimate does not include the extra patients sent to our Saturday "Chest Cliniques" for students, nor those of three years on the district, nor the results of three years of attendance during this period in the same class in that worthy charity the Eastern Dispensary.

From differences in the severity of the winters, or other causes, the numbers with chest affections varied. These fluctuations may be illustrated by the following table, with the result in each year, taken from the Annual Report of the year following:

NEW YORK DISPENSARY—VARIATIONS IN SEASONS.

Four prevailing Diseases of the Chest, for Six Years previous to January 1st, 1860.

Year.	Pleurisy.	Pneumonia.	Phthisis.	Bronchitis.
1859 (Rep. 1860).	306	119	1,906	4,667
1858.....	250	192	1,386	4,974
1857.....	144	166	1,235	5,495
1856.....	131	132	895	4,057
1855.....	235	226	639	3,126
1854.....	182	274	658	1,810
Totals...	1,248	1,109	6,719	23,529

It will be seen that "bronchitis" largely heads the list, while the sad array of consumptives comes next. As proof of care in diagnosis, there were recorded in this term a "total" of 1,175 patients with "pleurodynia," or "muscular pains" of the chest. Those interested in sanitary studies may make a more accurate comparison of these changes, with the aid of the following table, giving the entire attendance for this period:

PATIENTS OF ALL CLASSES, INCLUDING VACCINATIONS, ETC.

1859 (Rep. 1860.)....	44,627	1856.....	40,235
1858.....	47,032	1855.....	39,554
1857.....	41,235	1854.....	46,052
Total.....			258,725

Among these poor we soon learned to dread the exhaustion of large fly-blisters. Even with the hardy subjects which they seemed to benefit, they were soon cut down to the standard of four inches square, or less. One or two only were used at intervals of a few days, and they were soothed with an anodyne poultice before dressing.

In the latter half of the management of these Dispensary cases, there was found a far better substitute

for blisters. It was the alternate application of iodine and croton-oil. We commonly changed to these last when the tape-line showed slight enlargement or "bulging;" when inspection proved that the intercostal spaces were beginning to flatten, and when the dullness on percussion was more completely "deadened." The ribs over the effusion were then painted with several coats of the tincture of iodine in large brown patches, five or six inches square, every second or third day. These stains were rubbed over with two or three drops of croton-oil—perhaps once a week—just sufficient to maintain moderate pustulation. And the soiled fingers were at once washed with soap and water. When the space thus gently irritated was healed, the process was repeated, or the location was changed. And thus we kept painting and rubbing till the effusion was gone.

The excellent results which we shall presently mention were hardly due to these appliances alone; for as every sensible practitioner knows, counter-irritation in any form is only a valuable auxiliary to internal treatment. And this last was equally mild. Even at that early day, among these poor emigrants, we never either bled or purged in pleurisy. As a rule, latterly, we avoided antimony, mercury, veratrum viride, and aconite. We did not deny their valuable services as arterial sedatives, and as excellent substitutes for blood-letting in inflammation, with stronger patients or in private practice, in this brain-weary age. But with these weaker constitutions we feared that they would help to thin the blood or palsy the impulse of the feeble heart. We were not quite original. It is but a just tribute to say, that this caution was due in

part to the previous teachings of that admirable chest physician, Skoda, during a few months in the hospital at Vienna.

In the acute stage, as is well known, we were liable to be consulted at two different points in its progress. There might be fever; a rapid or full pulse; thirst; a furred tongue; with difficulty of breathing; a sharp pain in the side, and a dry, teasing cough, accompanied by the physical signs of stiffness in the chest movement and the "friction sounds" of the "dry period." Or a little later these febrile and rational symptoms might be associated with marked dullness on percussion, and the absence of respiration from the effusion of the fluid. And one was relieved of the fear of pneumonia by the freedom from tenacious or bloody sputa. In either case, our first effort was to make the patient thoroughly *comfortable*. It was before the blessed day of hypodermic injections. We generally resorted to a safe anodyne, added to a diaphoretic or diuretic, and sometimes to both. It is scarcely necessary to add that there is little or no risk with a mild narcotic in these painful chest affections, when the face is not livid, and there is a warm glow upon the surface of the body. In our later experience the following soothing combinations, among others, were often used :

R. Pulv. Doveri.....	gr. xx.
Pulv. potassæ nitrat.....	gr. xx.
Pulv. opii.....	gr. ij.
Pulv. sacchar. alb.....	3 i.
Ol. anisi.....	gtt. ij.
Spirit cinnamon (tinct. ol.).....	gtt. iij.
M. et div. in pulv.	No. vi.

Take one powder in moistened sugar every four waking hours till quiet.

In merey a saccharine aromatic was added to cover the mawkish taste of these powders. Some of our friends present will recognize this addition as a concentrated imitation of that very convenient preparation, the "oil sugar" of the German pharmacopœia, composed of one drop of essential oil to thirty grains of sugar.*

In milder cases, or later in the disease perhaps, we tried this:

℞. Liquor ammoniæ acetat. ʒ iij.
 Spirit. ether. nitr. ʒ iij.
 Tinet. hyoseyami ʒ ij.—ʒ iv.
 Spirit. gaultheriæ (tinet. ol.) gtt. xij.
 M.

Take a dessert-spoonful in sweetened water every four waking hours. When convenient, this was given with some grateful fruit juice, or with lumps of ice dissolved upon the tongue. If the fever was very high, half a drachm or more of the nitrate of potass, in solution, was substituted for the acetate of ammonia. When the hyoseyamus failed to quiet the pain, a little morphia was sometimes administered. If the pulse was firm and the skin dry, the eighth of a grain of ipecacuanha, or a little more, was added to each dose of the mixture.

Within the last few years we have changed to milder external applications at the commencement. We have resorted to a plan equally serviceable and safe in pains of the chest or abdomen. Over the ach-

* See Article "Oelzucker," edition 1870. With a refinement worthy of German civilization, it makes the mouth water with such "delicacies for the sick" as the syrups of cinnamon and raspberry.

ing side there has been at first laid a blood-warm mustard plaster, half meal or flour, folded between cloths, and applied for twenty or thirty minutes, till the surface has been well reddened but not blistered. The mustard has been followed by a piece of flannel wet with laudanum or spirits of camphor. This again has been pressed home to the ribs by a comfortably hot bag of three or four quarts of meal, oats, or better still, *wheat bran*. If musty, from being long kept for the purpose, it may be sprinkled with cologne. It is generally heated in a deep dish, in a stove, oven, or range, and poured into a soft pillow-case, to be lightly applied and renewed as it gets cooled. We think "dry heat" is much more safe than moist. The "bran bag" may be kept warm much longer if covered with sheets of cotton wool, enveloped with brown paper, or more perfectly still, with "*oiled silk*." This sort of domestic Turkish bath is commonly used, for several hours at the onset of the disease, first to quiet pain, and next to excite a gentle perspiration, and thus relieve congestion of the lung.*

All this gentleness was to save strength. We waited till the early acute symptoms had passed before venturing to apply a blister. The diet was rather liberal. Milk, eggs, toast, bread and butter, plain vegetables, fruit, and the lighter forms of animal food were gradually allowed; for it was evident that prostration would soon follow.

In the chronic stage it was found convenient to compare the good effects of squills, digitalis, the ace-

* The heated "bran bag," applied twice or three times a week at bedtime to the loins, by increasing cutaneous action has served us materially in the treatment of certain affections of the kidneys.

tate of potass, and other diuretics, by the following test, available for the first fortnight or more of the effusion. It was to listen directly over the upper border of the fluid—while the patient distinctly counted—for that piercing, trembling echo of voice, the “Ægophony” of Laennec. Or in its absence, there was usually marked bronchophony without the vibration. One or the other was commonly audible at this period, if carefully sought at a point nearly opposite the middle of the scapula, or upwards or downwards about two inches from the spinal column behind. A black mark, an inch long, was at once made over this penetrating line of voice, with a moistened stick of *nitrate of silver*. And this dark stain remained perhaps for ten days or more, as a fixed landmark for daily careful observations, to measure the rise or fall of the fluid within. For these changes corresponded with the shiftings of the intensified sound of voice. This mark was also a useful guide in estimating any variations in the respiratory murmur or dullness on percussion. And it told the story, when fortunate, of gradual cure. We do not know the author of this excellent device. At least two accomplished friends have used it for years.

These physical signs were all made more clear by another simple expedient. The patient was directed to cross both arms and grasp, not these, but the *highest points on the shoulders as far back as he could reach*. He then pulled them steadily and firmly forward, so as to separate the shoulder blades, and hold them *fixed as widely apart as possible behind*. This process might be aptly termed *uncovering*; for it partly laid bare the ribs under both scapulæ and stretched and

thinned the thick muscles in their rear. The writer had occasion to commend this improvement on the old position in a paper read before the Academy of Medicine, and published in the *New York Journal of Medicine* for March, 1859, "On the Management of the Shoulders in Chest Examinations." In consumptive patients it was also a great assistance in searching for obscure groups of tubercles at the apex of the lungs behind. We add a sketch.*

Lower down beneath the shoulder-blades, either "friction sounds," or signs of limited pleuritic effusion were emphasized by crossing and locking the arms behind the head, as shown in the second illustration.*

By many experiments with the "nitrate-of-silver test," aided by this expedient of "uncovering," we came at length, as a rule, to prefer the iodide of potassium in steady moderate doses, as the most uniformly successful tonic diuretic of the list. Others might produce a greater temporary increase in the quantity of urine; but this proved, as we fancied, the best absorbent to liberate the compressed lung. To use an agricultural figure, it excelled the others in its power of *under-draining*. It had also the effect of preserving, and sometimes even increasing, the appetite for food. While we were mildly blistering, painting or rubbing for weeks together outside, we gave internally, at the same time, about five grains or even less of the iodide of potassium three times a day. This salt, as well as some of the preparations of iron, will produce a slight amount of *worry* in most sensitive subjects, which we have found relieved by a

* These illustrations are given opposite the title-page.

merely nervine addition of hyoseyamus or eonium. The following prescription, variously modified, was a favorite with us as a mild diuretic in chronic pleurisy :

R. Potass. iodid.....	3 i.—3 iv.
Tinct. hyoscyam.....	3 ij.
Tinct. eort. aurant.....	3 i.
Spirit. gaultheriæ vel	
Cinnamoni (tinet. ol.).....	gtt. xij.
Aquæ.....	q. s.
Ft. mist.	3 iv.

Take a dessert-spoonful three times a day in a wine-glassful of sweetened water between meals. This mixture was sometimes made more diuretic by adding three or four scruples of the best extract of taraxacum, or more laxative and tonic by combining with it a fluid drachm of the tincture of nux vomica. In tedious recovery the appetite was occasionally encouraged by qualifying the above combination with two or three drachms of the tincture of columbo, or an ounce of the tincture of calisaya bark.

We watched the more delicate of those pallid, emaciated patients with pleuritic effusion with deep interest. Until complete restoration to health there was always a lingering fear of future consumption. In some respects, we happened to anticipate the recent views of Niemeyer and others as to the *occasional* agency of inflammation—especially in weak or scrofulous subjects—as the starting-point of tubercles. And these apprehensions stimulated all possible preventives. At the close of the treatment, we recommended warm flannels, plenty of milk and meat, and other varied diet; ventilation in sleeping, and careful, yet free

exercise in sunlight and air. Sometimes the lost flesh was restored with cod-liver oil. And the ears were closely inspected to see if they needed *iron*. These were as interesting as the webs of frogs to young microscopists. Like the pulse, they were examined while free from excitement. And we have never seen a surer sign of the want of iron in the blood of a calm patient than a *pale, waxy ear*.

To favor those grand restoratives sleeping and eating, special pains were taken with the prescriptions. Medicines were always given by preference during "waking hours." Sugar was not so essential as water. Salts, acids, alkalies, and chemicals generally were thought to disturb the stomach less when pretty largely diluted. The interval "between meals" was commonly selected as the best time for the starch and other elements of partly digested food to combine with the iodide of potassium and some other substances.

An early accident directed our attention to another aid in building up these pale, wasted subjects, slowly recovering from pleurisy. Many years since, while on duty as physician to the Brooklyn City Hospital, the writer began a series of observations for a projected paper "On the Relative Agreement of Medicines with the Stomach." Fits of flatulence, tender spots, and furred tongues were counted till he was weary. The task of thus comparing all the bitter things of the materia medica proved too great. It was never finished. But the effort led to new views of the importance of their pleasant administration. On careful examination it appeared that digestion itself was often temporarily interrupted by the nausea from unpalatable drugs. In actual danger we never dared to fiddle

with any kind of inert practice. With the prevailing exhaustion of this overworked age we were always generous in supporting agents. But in this it became a rule to conciliate the sense of taste—that jealous guardian to the stomach—with savory disguises. In fact it was simply bribing the porter. When their doses were made agreeable the poor seemed to eat the meagre fare of the sick-room with a keener relish. And if they thus recovered more rapidly, there was an actual saving in expense to a benevolent institution in adding a little sugar, a few drops of spicy tincture, or inexpensive aromatic essence. They would thus need less medication. We remember that dyspeptic consumptives used to profess to be attracted from other dispensaries by our “more pleasant” cod-liver oil spiced with a drachm to the pint—or less—of the very cheap oil of sassafras. As a general rule we observed that, as in the cookery of health, the stomach in sickness was best pleased with the more delicate *compound* flavors. In illustration we may mention that our most satisfactory recent improvement of cod-liver oil, in private practice, has been to add to the ordinary full bottle of oil a teaspoonful of a mixture of one part of the oil of pimento or “allspice,” one part of the essence of cinnamon, and two parts of the tincture of orange-peel.* This kindly practice perfectly charmed children. And then it was only humane. Where the hundreds of millions of earth instinctively craved “seasoning” in their food, it was hard to deny them “condiments” in their medicines. So we have continued ever since this early experience

* Pimento as a delicate carminative has been introduced into three of the formulæ in the British Pharmacopœia.

to flavor from principle, in the firm belief that the sick are thus better nourished.

The success of this gentle plan in this serious malady among these poor emigrants was a constant surprise to us for years. We can hardly account for it still. In the main features of this mildness our worthy colleagues agreed. As the figures show, more than half the credit was due to their skill. We may give some facts. Statistics in a crowded dispensary can never be so perfect as in a well-organized hospital. Their weak point is the termination. Making in honor due allowance for the number of grave cases sent to the hospital from the dispensary and the "results" lost, as well as for the transient patients who would stray to the country, its death-rate from pleurisy was still very favorable. Probably the item of mortality was better kept than many others. For where cases became so serious as to be fatal, they were always attended at their homes by the district physicians. These were salaried officers, appointed usually after faithful services, who reported the losses from each disease monthly. In six years, and over twelve hundred cases, there were only recorded six deaths from pleurisy, or less than a half per cent. With the drawbacks we have mentioned, it may be more safe to estimate the loss in round numbers at one per cent. Again, we were on the lookout all this time, publicly and privately, for suitable subjects for Dr. Bowditch's comparatively safe operation for empyema, with a small trocar and pump, near the inferior angle of the scapula behind. And we only ventured to puncture eight times. With the recent improvement of the admirable aspirator of Dieulafoy, we should have probably operated much

more frequently. In mild weather and moderate attacks the average time for the absorption of the fluid was about six weeks. This term was doubtless apparently extended by our caution in retaining patients under treatment longer than usual during convalescence. Unless the pulse ran for days over a hundred and twenty, we were pretty certain that the effusion was not purulent. Very curiously, our percentage of recoveries for some years was decidedly better in the dispensary than in private practice. Could it be that these wanderers from the fields and cottages of Europe had an elastic hardihood of constitution denied, with all their comforts, to our own brain-working citizens?

Returning to our process of economizing blisters by alternately painting and rubbing with the tincture of iodine and croton-oil, it may be remarked that it had three defects. It was filthy, tedious, and uncertain. The sick citizens of the Sixth Ward were very modest with croton and croton water. In their misfortunes they were sometimes dirty. We speak mildly. And this solemn anointing—this benevolent staining of the white fingers of a young physician over ribs already browned and scarred—kept the crowd too long in waiting. Pure croton-oil rubbed outside had its freaks. It behaved well in a dozen patients perhaps, and then, without any warning, it ran wildly over a whole side like an eruption of small-pox; or in sleep it mounted to the face, with a capital imitation of erysipelas. Nothing but firm faith in its virtue made us endure these drawbacks. We longed for something better. It came. About four years since, in private practice, we discovered that sulphuric ether not only dissolved

croton-oil in the tincture of iodine, but also greatly improved it as a counter-irritant. This combination could be cleanly and rapidly applied with a camel's-hair pencil, even by a nurse. It dried quickly, saved the fingers, and was very certain. Within twenty-four hours it commonly produced, on a red, even surface, a thickly dotted pustular eruption, smaller in size, less painful, and much better defined than that from croton-oil alone. The medical virtues of the iodine were retained, and even its dark stain on the skin helped accurately to measure the application. Thus improved we have found it, after a pretty extensive trial in different diseases, more generally serviceable than any other counter-irritant that we have ever used.

The curative action is the same; but in actual experience it is far more convenient than the alternate painting and rubbing of twenty years ago. In appearance it perfectly resembles both the tincture of iodine and Lugol's solution. It should be very carefully labelled. With "paint" staring him in the face, on the bottle, a worthy neighbor was so fascinated with its beautiful violet color, not long since, that he mistook it for the tincture of rhubarb, and took a teaspoonful of it to cure his diarrhœa. He was moved, down to his very boots. When you remember that a single drop of croton-oil will commonly produce five or six painful evacuations from the bowels, you can estimate the force of ten drops fired with forty of the tincture of iodine. He doubtless felt like a man with the nightmare, who dreams that he has swallowed the screw of a steamship in rapid motion. In fact, he got up a fearful imitation of Asiatic cholera, from which he fortunately recovered, much wiser in the study of pur-

gatives. Excuse this playful illustration of a very serious matter—a mistake in taking medicines. To prevent such accidents, we advise you always, in writing this prescription, either to leave verbal directions with the druggist, or add a postscript, “Please write ‘Paint’ distinctly at the top.” An intelligent lady patient one day called it “croton paint.” “Liniment” will surely lead to blunders. “*Paint*” is just the word. With a slight addition for safety, let us commend this suggestion in a name to the grave committee of the next Pharmacopœia, and propose that it be first elegantly rendered “Pigmentum Croton Tiglii,” and then be plainly translated “Croton-Oil Paint.”* The quantity of sulphuric ether added should be double that of the oil, to make a perfect solution. If the ether is not pure, there will remain a little oil undissolved at the bottom. It is better always to shake the mixture before applying. From many experiments we have preferred two forms varying in strength. We give the formulæ:

MILDER CROTON-OIL PAINT.

℞. Olei croton tiglii..... 3 i.
 Ether. sulphur. fort..... 3 ij.
 Tinct. iodin..... 3 v.
 M.

Apply two or three coats at a time, with a camel’s-hair brush, over a small surface once a week. This is most useful for children, females, or sensitive males.

* Since writing the above, we perceive that in the excellent Pharmacopœia of the Hospital for Diseases of the Throat, London, edited by Dr. Morell MacKenzie, there is a class of “Pigmenta” or “Local Applications.”

STRONGER CROTON-OIL PAINT.

R. Olei croton tiglini.....	3 ij.
Ether. sulphur. fort.....	3 iv.
Tinct. iodini.....	3 ij.
Potass. iodid.....	℥i.
Iodini.....	gr. x.

M.

Paint, as above, over the side, back, or loins. It is richer in iodine and better adapted to less susceptible subjects.

With increased confidence from experience, these combinations have superseded blisters entirely in the majority of cases of pleurisy that we have treated within the past three years. We now apply them within forty-eight hours after the effusion. With two patients, not long since, one a lad of twelve years, just returned in the spring with an invalid from Florida, and the other a young lady of sixteen, after the exhibition of the iodide of potassium and repeated "paintings" alone, without the aid of blisters, the fluid was absorbed within a month.

As we have just intimated, our observations have extended beyond pleurisy. We have a collection of cases of affections of the eye, ear, bladder, and spine, as well as examples of whooping-cough, pleurodynia, muscular rheumatism, and sciatica, and other diseases, which we have gradually gathered from domestic practice and the Dispensary Department of the Orange Memorial Hospital. These show a wide range of usefulness of the "paint" as a counter-irritant. But we cannot trespass on your kindness with them now; we hope in future to present them through some proper channel. It was most generally serviceable,

perhaps, as a help to gentle expectorants in ordinary mild bronchitis, or, as it is familiarly termed, a "neglected cold" of a week's duration. And with the aid of tonics, nourishing diet, and *double flannels*, it often helped to alleviate the "winter cough" of the aged. Our favorite location for painting in these bronchial difficulties was each side of the spine, in the hollows between the shoulders. It caused here the least annoyance in both sexes, was protected in sleep and with nursing women, and seemed to afford most relief from being nearest the roots of the nerves concerned in coughing.

We close with a few precautions. On account of the danger of exciting either eczema or ulcers of the leg, we avoid applying croton-oil in any form below the hips. We here substitute the pure tincture of iodine. In affections of the eye and ear, a mere line of pustules can be concealed by the hair of the temple, or behind the mastoid process. Elsewhere, with both forms of the paint, we commonly cover a space of from one to five inches square—less in children and females, or along the spine—and more in males, or over the loins or the sides of the chest. From two to four coats at a time are applied with a camel's-hair brush, on the average about once a week. If this fails to pustulate within forty-eight hours, the surface is rubbed thoroughly with the finger till well reddened, and the paint is reapplied. When it spreads uncomfortably, or is more painful than usual, these symptoms may be promptly relieved by brushing over the eruption with equal parts of glycerine and laudanum, and then covering it with a soft piece of linen moistened with olive-oil.

APPENDIX.

 ABSTRACT OF CASES ILLUSTRATING THE USE OF "CROTON-OIL PAINT" AS A COUNTER-IRRITANT IN OTHER DISEASES.

THE interest here centres upon a single point. We are thus enabled to condense these notes, accumulated during the past four years, into a smaller compass. Yet as the cure can hardly be attributed to counter-irritation alone, it is right to give some hints of the internal treatment. Indeed, it is easy to injure the reputation of any new remedy by too much praise. There is sure to be a reaction. In medicine, as in every thing else, it always pays in the end to tell the simple truth. It is wrong to magnify one curative agent to the entire neglect of others. Let us not forget the influences of proper food, clothing, exercise, rest, recreation, ventilation, cleanliness, sunlight, air, and all that constitutes good *management* of the sick. With the following brief histories these must have due credit, though there is not room to mention them.

In four patients with iritis—two males and two females—the pupils were dilated with atropine for many days, and the iodide of potassium with hyoseyamus given by day, and morphia at night, while the brow was daily brushed with the tincture of iodine. With three rheumatic cases the pain in the eye and intolerance of light soon improved. But the fourth and most severe attack was in a decent German, who was very sure that he had never acquired any constitutional taint by vicious excess. Yet he did not mend till the gums were affected by a mild mercurial. All four seemed aided in their gradual recovery by keeping, for some time, a line of pustules, concealed at the temple, by applying the paint among the roots

of the hair. Occasionally we meet with persons who are very subject to pain in the ear, and deafness, from exposure to cold. In three instances of this kind, after warm anodyne fomentations to the ear, and the use of drops of Magendie's solution of morphia and glycerine, decided amendment followed pustulating carefully, out of reach of the folded ear in sleep, in the hair beyond the mastoid process.

There is a natural dread among all classes of that terrible malady, cerebro-spinal meningitis. With three adult males fears of this disease were excited by severe spinal pains, reflected around the body, stiffness in the neck, some fever, and in two instances by delirium. The liberal use of the bromides, with hypodermic injections of morphia, and the pretty free application of the paint along the spine, seemed to relieve all the distress within a week. In the worst case a brisk purgative was given.

With proper internal remedies painting has proved almost a specific in rheumatism of the shoulder. It has also been an excellent adjuvant in those muscular "pains in the chest" associated with pleurodynia. In two female patients recently these were so severe as to excite suspicions of pleurisy. There was a lancinating "stitch in the side" with every breath. A single dose of morphia helped to quiet this. It was also soothed with the dry heat of the bran-bag for a few hours. The iodide of potassium, combined with moderate doses of colchicum, hyoseyamus, and tincture of cinchona, was promptly administered. As soon as decided pustulation was established over the ribs all the symptoms rapidly mended. With our increased modern resources, sciatica sometimes resists for a time the best-known treatment. In five male subjects, where colchicum, quinine, the iodides, iron, hypodermic injections of morphia, and in some instances phosphorus, strychnia, and electricity had been faithfully tried, great improvement in one case, and gradual cure in the others, followed repeated paintings over the sciatic nerve. It is scarcely necessary to mention that we are often prevented from using fly-blisters over the

loins from the dread of strangury. Fortunately this application is free from this objection. A female patient, after her fourth confinement, had a firm, hardened mass crowding the vagina just below the os uteri. It had the signs of "pelvic cellulitis," so well described by Simpson. Under the exhibition of the iodide of iron, with mild sedatives, after irritating the lumbar region with the above preparation, she steadily rallied for a number of weeks. At length she suddenly died of prevailing diphtheria.

We have found no counter-irritant either so well borne or so effective in diseases of the bladder. Four adult females, at different periods, had distress in urination, with more or less burning pain and a mucous cloud in the urine. At first there was given, three times a day, a mixture of liquor potassæ, sweet spirits of nitre, and full doses of the tincture of hyoseyamus, well diluted in sweetened water. This was aided by the drily heated bran-bag to the back at night. These measures were again succeeded by an exhibition of preparations of uva ursi and buchu, and lastly by the tincture of iron. In addition, weekly pustulations over the loins apparently assisted in the permanent recovery.

Chronic diarrhœa is known to be occasionally very persistent, especially if it is complicated with tenderness of the abdomen. Two lady patients were slowly recovering from protracted typhoid attacks, with teasing discharges from the bowels for weeks. Local paintings, steadily maintained over the tender spots, with gentle opiates, bismuth, pepsin, and delicate astringents and tonics, and a milk diet, were at last rewarded with gratifying restoration to health. Every prudent physician is naturally guarded in the use of counter-irritants with delicate children. Yet in a recent epidemic of whooping-cough we fancied that constant benefit was derived from very lightly irritating, with the milder "paint," a point between the shoulders, behind, the size of a silver quarter. With a child a year old, for instance, this was associated internally with the exhibition of a mixture of a grain

of the bromide of potass, half a grain of the carbonate, a drop or less of the tincture of belladonna, and a trace of cochineal, given three times a day with cinnamon water and the syrup of tolu. One of the worst cases was much benefited by quinine.

As a rule, we prefer to avoid the "worry" of even mild counter-irritants in consumptives, for fear of some exhaustion. There is a single exception. Sometimes a cavity, very near the surface, will greatly aggravate the pain of coughing by its tender pleuritic adhesions. This is often soothed by gentle outside irritation. A lady patient, who came to Orange for her health, after repeated attacks of hemorrhage, and spending several summers in the Adirondacks, had for many years a cavity just beneath the left scapula, which at last gradually enlarged and proved fatal. But at times she found more relief from painting the shoulder than anything else.

A consumptive hatter, aged thirty, now under our care in the Orange Memorial Hospital, has coughed since July. He has had one severe hemorrhage and occasional night sweats. The pulse is 118, respiration 38, and temperature at the axilla 100°. Two inches below the right clavicle a depressed surface, want of motion, cracked metal sound, amphoric breathing, heart sounds transmitted, and piercing *pectoriloquy* indicate a considerable cavity close to the listening ear. The left lung is healthy. His digestion allows full doses of cod-liver oil. Decided relief from the "tearing pain" and nightly paroxysms of coughing has been obtained by painting gently over the point affected.

Orange—with its mountain shelter from the north and west winds in winter; its succession of long, dry, alluvial ridges, all covered with trees and gardens, as seen in the beautiful view from Eagle Rock; its breath of mild sea air from over the low Jersey shore to the south-east, and the artificial heat from the chimneys of five large cities lying near in that direction, to keep off eastern fogs—if sought early, is, doubtless,

fairly entitled to the reputation it enjoys, of being the best "health retreat" for certain chest affections on the North Atlantic coast. But it is right to say that both sensitive and imprudent people often get coughs and colds here. It is true that it is always sheltered; yet advanced consumptives, who can well go farther south, should remember, in February and March, that it lies in the latitude of New York. During the last, or "panic winter," among the laboring classes out of employment, and sometimes scantily clothed and warmed, there was an unusual number of cases of bronchitis that came to our service in the neighboring dispensary. As before intimated, our rule with these was to paint between the shoulders, behind, whenever the cough had lasted a week. And with mild soothing expectorants internally, we repeated the process weekly till they were cured. This course, with solemn injunctions to "keep warm" and "*nourish well*," was particularly serviceable in the "winter cough" of the aged.

ON

The Treatment of Pleurisy;

With an Appendix of Cases, showing the value of combinations of Croton Oil, Ether, and Iodine, as Counter-Irritants in other Diseases.

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